

ABSTRACT:

A processing device for executing virtual machine instructions

A processing device comprises an instruction memory 120 for storing virtual machine instructions, such as Java byte codes. A processor 112 of the processing device comprises a predetermined microcontroller core 114 for executing native instructions from a predetermined set of microcontroller specific instructions. The native instructions differ from the virtual machine instructions. The processor 112 is of a type which may request re-feeding of a plurality of native instructions. For instance, the processor 112 may have a pipeline and/or instruction cache which after an interrupt need to be re-filled.

The processing device comprises a pre-processor 130 with a converter 132 for converting at least one virtual machine instruction, fetched from the instruction memory, into at least one native instruction. Feeding means 136 of the pre-processor 130 feed native instructions to the microcontroller core 114 and re-feed native instructions in response to the processor requesting re-feeding of a number of native instructions.

Fig. 1A